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Source/Driver: (Name & Number from ISP, IAG milestone, Mgmt. Action, Corres. Control, etc.)

Closure #: (Outgoing Correspondence Control #, if applicable)

Due Date

L. Peterson-Wright
Originator Name

S. Luker 5.8.96
QA Approval

Alan M. Parker
Contractor Manager(s)

S. J. Hahn
Kaiser-Hill Program Manager(s)

T. G. Hedahl
Kaiser-Hill Director

Document Subject: KH00003NS1A

TRANSMITTAL OF RESPONSES TO COMMENTS RECEIVED FROM THE DEPARTMENT OF ENERGY ON THE OPERABLE UNIT 7 INTERIM MEASURE/INTERIM REMEDIAL ACTION DECISION DOCUMENT, PROPOSED PLAN, AND RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CLOSURE PLAN – AMP-059-96

May 6, 1996 96-RM-ER-0080-96

Discussion and/or Comments:

This letter transmits three copies of the responses to Department of Energy comments on the Operable Unit 7 (OU 7) Decision Document, Proposed Plan and RCRA Closure Plan. Please transfer one copy to the Department of Energy. If the responses are acceptable, RMRS will incorporate them in the next revision of the document.

Comments were not received on April 1, 1996 from the Environmental Protection Agency and Colorado Department of Public Health and Environment as scheduled. As a result, the project has experienced a 24 day schedule slip.

If you have questions concerning this transmittal, please contact John Law, of my staff, at extension 4842.

LJPW:dql

Enclosures:
As Stated

cc:
J. E. Law
E. C. Mast
A. M. Parker
L. J. Peterson-Wright
A. L. Primrose
RMRS Records

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BZ-A-000479

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ER/WM & I DDT - 7/95

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TYPIST INITIALS:
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Rev. 4/25/95)

KAISER•HILL
COMPANY

May 16, 1996

96-RF-03092

Jessie M. Roberson, Assistant Manager
ES&H Program Assessment
DOE, RFFO

Attn: Dave George, OU 7 Project Advocate

TRANSMITTAL OF RESPONSES TO COMMENTS RECEIVED FROM THE DEPARTMENT OF ENERGY ON THE OPERABLE UNIT 7 INTERIM MEASURE/INTERIM REMEDIAL ACTION DECISION DOCUMENT, PROPOSED PLAN, AND RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) CLOSURE PLAN - TGH-110-96

This letter transmits one copy of the responses to Department of Energy comments on the Operable Unit 7 Decision Document, Proposed Plan and RCRA CLosure Plan. If the responses are acceptable, they will be incorporated in the next revision of the document.

If you have questions concerning this transmittal, please contact Stephen Hahn, of my staff, at X9888.

T. G. Hedahl, Director
ER/WM & I Operations

SJH:bag

Orig. and 1 cc - J. M. Roberson

Attachment:
As Stated

cc:
J. E. Law - RMRS
J. L. McAnally - RMRS
A. M. Parker - RMRS

ADMIN RECCRD

Kaiser-Hill Company, L.L.C.
Courier Address: Rocky Flats Environmental Technology Site, State Hwy. 93 and Cactus, Rocky Flats, CO 80007 • 303.966.7000
Mailing Address: P.O. Box 464, Golden, Colorado 80402-0464

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REVIEW COMMENT SHEET

Return comments to: Laurie Peterson-Wright (Name) 080 (Bldg.) 8553 (Phone) 8556 (fax) Comment Due Date: April 1, 1996

Document: RF/ER-96-0009.UN (Number) ____ (Rev) Draft (Draft or Final) OU 7 IM/IRA Decision Document (Title)

General (G) comments require resolution but do not require resolution acceptance. Mandatory (M) comments require resolution and resolution acceptance. 1 A03-PPG-004 provides complete definitions of General and Mandatory comments.

TYPE G or M	PAGE	SECTION or LINE #	COMMENT	DISPOSITION	Disposition accepted initial & date
Review of Revised Draft Report "Phase I IM/IRA Decision Document and Closure Plan for Operable Unit 7, Present Landfill" February 28, 1996 In conducting this review, it was recognized that this decision document represents a "final" draft which was primarily adapted and changed as a result of both internal and regulatory comments on the "draft" version. It was also recognized, however, that the document, description of alternatives, and technical discussions presented in this current draft represent a significant change from the "Draft OU7 DD". For this reason, the following technical comments have been made and it is suggested that the appropriate changes be considered as they would add to the accuracy and veracity of the document. The following General Comments outline three particular concerns which should be specifically noted by DOE and addressed. Specific comments are technical comments discussing particular sections of the text.					
G 1			The recommended alternative and conceptual design does not specifically meet the EPA guidance for design of a RCRA Subtitle C	*EPA and CDPHE have reviewed the Draft Interim Measure/Interim Response Action Decision Document and concurred with the*	

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TYPE G or M	PAGE	SECTION or LINE #	COMMENT	DISPOSITION	Disposition accepted initial & date
			cap. It is agreed that the recommended alternative/design is technically sufficient and it appears that it will meet the criteria for landfill closure under the CHWA (6 CCR 1007-3; Part 265.310), however, we do not know the degree State and EPA have unofficially concurred on the proposed alternative as being technically sufficient to meet the CHWA criteria for closure. It is recommended that RFETS develop a technical plan or contingency plan to technically defend the proposed alternative/design should the regulators push for a more costly or unneeded alternative.	*proposed alternative as indicated by comments received. They recommended strengthening the rationale for alternative selection.* *A technical plan or contingency plan can be prepared if required by DOE-RFFO.*	
G 2			The conceptual design allows for seepage to discharge to ground water and indicates that this seepage and discharge will be reduced in the future because the cap will prevent infiltration The technical arguments put forth in this document suggesting that this ground water will not outfall to the surface (i.e. No Name Gulch) appear weak. Please see Specific Comment number 4. Based on the previous regulatory comments concerning the treatment or management of the leachate, the proposed alternative will probably not be accepted by EPA and CDPHE without either better technical justification or by including interim treatment of the leachate. Furthermore, the document does not adequately tie into the Ground Water Strategy and Action Levels Strategy which are being put forth to the RFCA agreements. It is felt that the document should better discuss and	*Please see response to specific comment number 4. The March 8, 1996 draft used the Ground Water Strategy and Action Levels Strategy as the basis to determine whether a groundwater management action was appropriate for OU 7. Post-closure monitoring was also integrated with the Site Groundwater Monitoring network.*	

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			reference these proposed agreements in order to better defend the arguments put forth to not treat leachate.		
G3			It should be noted to DOE that the cost estimates used for the alternatives and for the recommended alternative are significantly greater which have been incurred for other similar cap or environmental constructions, even taking into account that this will be on a site of the nuclear complex. It is suggested that DOE carefully scrutinize these proposed construction costs during the Title II Design. See Specific comments 18 and 26.	*Per a telephone conversation with Dave George, DOE-RFFO Project Advocate, this comment is to be disregarded.*	
M1			Section 1.3.3 Other Maintenance and Remedial Actions /Well Abandonment, Figure 1-4; Figure 8-1 The key on Figure 1-4 is incomplete in that the various well locations symbols are not explained. It appears that some wells that would meet criteria for abandonment in Section 1.3.3, in that they would be covered by the landfill cap are shown as remaining in place on Figure 1-4, including B206389, B206189, 5987, 6387 and 6787. Also, numerous wells are shown on Figure 1-4 as not being abandoned but they are not shown as remaining in place for monitoring during the post-closure period on Figure 8-1. No indication is given on what will become of these wells at closure.	*An explanation of the symbols such as in Figure 2-15 will be added to Figure 1-4.* *Wells B206389, B206189, 5987, 6387, 6787 have previously been abandoned. The need to abandon or monitor the remaining wells will be determined by the Sitewide Groundwater Strategy and groundwater monitoring network.*	

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TYPE G or M	PAGE	SECTION or LINE #	COMMENT	DISPOSITION	Disposition accepted initial & date
M2			Section 1.4 The Presumptive Remedy Approach In this section, the remedial action objective (RAO) for leachate control is expressed, "Leachate collection (and treatment as needed)" where elsewhere in the DD it is expressed, "Leachate collection and treatment (as needed)". While this difference may be trivial, achievement of RAOs is a key comparative measure of the alternatives and the adequacy of the recommended alternative throughout the document and so the RAOs should be consistently presented. Please correct as appropriate.	*The remedial action object for leachate control will be expressed as "leachate collection and treatment (as needed)" throughout the document.*	
M3			Section 2.3.3 Interactions Between Surface Water and Groundwater, and Section 2.3.6 No Name Gulch The concept that No Name Gulch is always a losing stream is presented in the responses to comments by the regulatory agencies as an explanation why discharging seepage to ground water will be a viable post-closure approach. However, the east landfill pond will be removed and the pond has provided a hydraulic break. Section 2.3.3 indicates that the weathered bedrock and surficial materials, i.e., the entire upper hydro-stratigraphic unit (UHSU), below the dam is typically unsaturated. Therefore, the three arguments for No Name Gulch as a losing stream (Section 2.3.6) appear weak:	*RMRS personnel are reviewing the assessment that No Name Gulch is a losing stream and will present the information, augmented by modeling, if appropriate, in the next revision of the Decision Document. The ecological risk associated with discharge to surface water is also under review.*	

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TYPE G or M	PAGE	SECTION or LINE #	COMMENT	DISPOSITION	Disposition accepted initial & date
			1) The fact that no surface water flow has been observed in No Name Gulch below the dam could simply mean that the interactions occur upstream of the dam (e.g., the perennial landfill seepage) and are retained along with interflow, surface water runoff and ground water interception system discharging in the pond. 2) The occurrence of ground water discharges to surface water in the western part of the buffer zone on other drainages is not a compelling argument in any event because the upper end of No Name Gulch has been obliterated where the Rocky Flats alluvium capping the adjacent areas is up to 30 feet thick. Also, the construction of the landfill has added to the surficial fill area with thickness up to 45 feet and a steep slope break to the valley colluvium. A third influence not mentioned in the DD is the presence of water supply ditches to the northwest of the landfill, which may seasonally recharge the Rocky Flats alluvium adjacent to the area of the landfill where UHSU ground water is said to pass under the existing ground-water interception system. 3) The fact that surface-water flow models have not incorporated surface seep flow		

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TYPE G or M	PAGE	SECTION or LINE #	COMMENT	DISPOSITION	Disposition accepted initial & date
			time series (a.k.a., external flow time series) for No Name Gulch discharging into Walnut Creek may simply by a historically accurate reflection of the presence of the east landfill pond. The exclusion of the seepage treatment the slurry wall for diversion of ground water from the recommended plan in large part [are] dependent upon the assertion that no surface discharge will occur below the landfill in the absence of the pond and its evaporative discharge. Note that assuming a conservative net evaporation of 1 to 2 inches per month from the 2.5 acre surface of the pond would yield an evaporative loss equivalent to the annual down-drainage flow calculated for the landfill area in the flow model prepared by Stoller. If in actuality the recommended remedy is not successful in eliminating surface flow below the landfill, what portion of the remedy cost will have been wasted? Other measures such as the slurry wall, engineered wetland, and/or additional measures including emergency collection and hauling of water avoid or halt an unauthorized discharge to surface water might be required. The cost of the Subsurface Seep Discharge, B. Seep Flow Are Engineered Fill" in Appendix G, Table G-22, including indirect costs, is about $1.3 million.		
M4			Section 2.3.5 Water Balance for the Landfill	*Based on comment number 46 received from EPA, the model was changed to assume that*	

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			In the Winter of 1994/1995, the water balance being prepared by Stoller indicated that the percentages of flow contributed by surface infiltration and ground water migration under the inception system reversed from the percentages given in this section. What new factors or changed assumptions contributed to the determination that 60% comes from surface infiltration and 40% from ground water migration?	*the north drain is functioning since blockage of the north drain has not been proven. The fit of simulated heads to measured heads is acceptable.*	
M5			Section 3.4.1.3, Estimation of Future ARARs Exceedances at the Point of Compliance; Section 3.5.1.3 Remediate Groundwater Downgradient of the Landfill The rationale for elimination of groundwater remediation from the RAOs is based upon existing quality downgradient of the landfill dam (where contaminant migration has not occurred due to the presence of the east landfill pond and dam[)]. Also, a comparison has been made between future modeled concentrations in groundwater at the point-of-compliance without the pond and dam vs. chemical specific ARARs. Well 72293 and the existing seep were used to initialize contaminant concentrations at the edge of the landfill in the one-dimensional modeling. For selenium, neither of these points represents the maximum detected nor highest average selenium concentration at the toe of or downgradient of the landfill. Per Table 3-14, selenium was maximum at Well B206789, but the 815 µg/l concentration in the well was not	*The following sentence will be added "While well B206789 contains the maximum dissolved selenium concentration, it is screened in the weathered bedrock." and inserted before "Contaminants identified in weathered bedrock groundwater were excluded from the modeling simulations because the weathered bedrock pathway is not considered to be complete with respect to human or environmental receptors."* *Table 3-14 does not represent the data set used for ARARs exceedance modeling. Table 3-14 demonstrates human health risk assuming the weathered bedrock groundwater would emerge as surface water.* *Modeling results presented in Figure D-7 indicate that the selenium concentration at the Proposed Point of Compliance is <1 µg/L, which is below the current segment specific and state-wide standards.*	

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TYPE G or M	PAGE	SECTION or LINE #	COMMENT	DISPOSITION	Disposition accepted initial & date
			used in the model. It appears that the rationale for not using this well was that it monitors the weathered bedrock. Since this high selenium level was identified as being for the UHSU n Table 3-14, the reason for its omission should be specifically stated in the DD on page 3-16. Also, the surface water standards against which the modeled selenium concentration at the point-of-compliance is being compared are in error. The selenium standard s shows as ground water ARARs in Table 3-17 are 135 µ/L (acute) and 17 µg/L (chronic), the old table value standard for protection of aquatic life. However, the current surface water selenium standard for Segment s4 and 5 is 10 µg/L and the new selenium table values standards, revised by the Colorado Water Quality Control Commissions (WQCC) on January 8, 1996 are 20 µg/L (acute) and 5 µg/L (chronic). The table values will probably be considered for incorporation in to the specific standard for Rocky Flats stream Segments 4 and 5 when the WQCC hears about changes requested by DOE/KH in December, 1996. Is selenium still not a problem in the downgradient groundwater using the current segment-specific 10 µg/l or current State-wide 5 µg/l standards?		
M6			Page 5-24, Section 5.3.4, Landfill capping Option Selected for Detailed Analysis, 2nd para.: 2nd sentence states that leakage rate for	*The statement will be corrected.*	

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TYPE G or M	PAGE	SECTION or LINE #	COMMENT	DISPOSITION	Disposition accepted initial & date
			Option G is the highest of remaining capping options. Option E has a leakage rate of 0.0016 and Option G has a leakage rate of 0.0001. It appears that Option E has a higher leakage rate than Option G does. This statement should be corrected.		
M7			Page 5-27, Section 5.5.3.1, Existing OU 1/OU 2 Facility, Cost: The annualized O&M cost for using the OU 1/OU 2 facility for leachate treating is an order of magnitude greater than the annualized O&M cost for an independent facility ($490,600 versus $43,200). It appears that the total O&M cost for the OU 1/O2 facility may have been included instead of proportional cost for treating OU 7 leachate. Either way, some explanation of why treating leachate at an existing facility versus at a stand alone facility should be proved.	*The original design of the OU 7 Seep Interception and Treatment System Accelerated Action planned for collection, trucking, and treatment at the OU/OU2 facility for the OU 7 leachate. This alternative was abandoned because of the high cost of trucking and treatment. The cost estimate provided to DOE-RFFO was used as the basis for the section 5.5.3.1 estimate. The cost estimate of a stand alone facility will be reviewed and revised if appropriate.*	
M8			Page 5-28, Section 5.5.3.2, OU 7 Conventional Facility Implementability: Two statements are made: "An NPDES permit would probably be required for discharge to No Name Gulch..." and that "Alternatively, only the administrative requirements of a NPDES permit would have to be met." The second statement should be deleted.	*The second statement will be deleted.*	
M9			Page 5-29, Section 5.5.3.3., Permeable Treatment Wall, Environmental Treatment Wall, Effectiveness: During the screening of this technology, it should have been identified	*Personnel from Sandia National Laboratories are investigating current research in the treatment of aromatic hydrocarbons by reactive barriers. The reactive barrier will be*	

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			that this technology does not treat the organic COCs; therefore, this technology should not be included in the section, but should have been eliminated earlier.	*eliminated prior to Section 5.5.3 if it cannot treat all Contaminants of Concern.*	
M10			Page 5-20 Section 5.5.3.3., Permeable Treatment Wall, Environmental Treatment Wall, Implementability: This technology should be considered as **technically** non-feasible, not administratively non-feasible.	*Section 5.5.3 will be revised to state that the technology is technically non-feasible, not administratively non-feasible.*	
M11			Page 5-31, Section 5.5.3.3., Permeable Treatment Wall, FORAGER Permeable Treatment Wall, Effectiveness, first bullet: It appears that iron is the limiting factor in change-out time, but is not so stated. This should be clarified.	*The limiting factor in change-out time will be clarified.*	
M12			Page 5-34, Section 5.5.3.5, Treatment Options Selected for Detailed Analysis: See comment 2 for OU 1/OU 2 Treatment Facility. Engineered wetlands is still included for detailed analysis despite the statement that these are used for metal removal and not for toxic organics. Why include these as stand alone treatment for the leachate, if the organic COCs will not be addressed?	*The engineered wetland technology will be reviewed and eliminated prior to Section 5.5.3. if it cannot treat all Contaminants of Concern.*	
M13			Page 5-34, Section 5.5.4.1., Discharge to Surface Water, Implementabilty: This states that this option combined with treatment could meet RAOs but no treatment is being evaluated that will treat the organics in the leachate. An appropriate organic treatment should be analyzed, in order to correctly	*A treatment technology that addresses all Contaminants of Concern will be analyzed.*	

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			evaluate this option.		
M14			Section 5.5.4.1, Discharge to Surface Water and 5.5.4.2 Discharge to Groundwater References to Figure 5-2, which is title as discharge groundwater and 5-3 titled as discharge to surface water, are reversed in these two sections.	*The references were corrected in the March 1996 Draft.*	
M15			Section 6.2.2.1 Alternative 2: Description In saying the pond area groundwater discharge fill may be fortified with organic matter to attenuate and degrade leachate contaminants, we are inviting the regulatory agencies to regulate this area as a treatment system, with monitoring requirements and concentration limits. PRG comparisons, modeling and focused risk presentation have all said that the groundwater should not be impacted at the point of compliance. If treatment is planned, it should b specified as treatment?	*The statement regarding fortification of the fill will be removed.*	
M16			Section 6.2.3.1 Alternative 3: Description The slurry wall described would be constructed using the simplest method for backfill preparation in which a bulldozer mixes in bentonite at the side of the trench then pushes the material back into the trench. We are assuming that the cost estimate in Appendix G (Table G-21) was the simplest method. However, during FY 95 Stoller	*When the slurry wall was considered as an option to fulfill the dispute resolution requirements, a special mixing area was required because the landfill was operating. At closure, a special mixing area would not be required.*	

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			prepared a partial design for which the slurry wall incorporated a special mixing area and equipment for backfill preparation. Was it decided simplest was satisfactory from technical standpoint?		
M17			Section 6.3.2 Compliance with ARARs In this section, we are saying that the chemical-specific ARAR for iron at the point of compliance will be exceeded in alternatives 2 and 3, whereas Sections 6.2.2.2. and 6.2.3.2 says that all ARARs will be met for each of the alternatives. These statements must be rectified using the analysis presented in Section 3.4.1.3. Again in Section 7.2.2.1, we are saying that all ARARs would be met at the point of compliance by Alternative 2.	*Sections 6.2.2 and 6.2.3 will be revised to state that no additional ARARs will be exceeded at the Point of Compliance. Likewise, Section 7.2.2 will be revised.*	
M18			Section 6.3.7 Cost The cost estimates for the alternatives here and throughout the document do not appear to include the KH burden costs on their subcontractor. In Appendix G, the summation of all indirect costs are about 92% of the direct construction costs. Total implementation cost estimates in the current RFETS pricing structure might actually be higher that the estimates listed.	*The cost estimates will be reviewed and revised to reflect the appropriate burdens.*	
M19			Section 7.2.1 Compliance with RAOs In this section on recommended alternative 2, we are saying that 2 RAOs are not	*Section 7.2.1 will be revised as suggested.*	

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			addressed, namely; • Collect and treat leachate at the source (as needed) • Control groundwater at the source In Section 6.2.2.2, we said that only the latter RAO would not be addressed. Consistency is needed to avoid an unduly harsh light on the recommended alternative. Also, the explanation in Section 7.2.1 is that these two RAOs are "not required", which connotes actions mandated by regulatory requirements. We should be saying something more like, "Achievement of these RAOs is not necessary to protect human health and the environment."		
M20			Draft Proposed Plan, page 2 paragraph 1 This paragraph says that six alternatives were subjected to detailed analysis, but only 4 alternatives elevated in Chapter 6 of the IM/IRA D only 4 are shown later in the PP.	*The Proposed Plan will be corrected.*	
M21			Draft Proposed Plan, Public Involvement Process All dates in this section must be updated.	*The dates will be updated after Agency acceptance of the Final IM/IRA DD and before the public involvement process begins.*	
M22			Draft Proposed Plan, Summary of Detailed Analysis of Alternatives	*The ratings will be revised and to reflect the detailed analysis of alternatives.*	

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			Criterion 5, Short-Term Effectiveness, the ratings on Figure 3 differ but there is no description of the differences in text and the evaluation factor, time to achieve RAOs (see Table 6-1 of DD., has not been addressed. It is not apparent in the PP, nor in the detailed analysis of DD Chapter 6, why alternatives 2 and 3 would receive different ratings in Figure 3, for Short-Term Effectiveness. If time to achieve RAOs were considered, it could even be argue that alliterative 3 would be more favorable that alternative 2 due to the inclusion of the slurry wall in alternative 3. The slurry wall would hasten the dewatering of the landfill waste mass, more rapidly reducing leachate formation and migration to downgradient groundwater. This is opposite from relative ratings presented in Figure 3. In criterion 7 of the PP, cost is identified as a significant distinguishing factor, a point who is not emphasized in the DD. The spread of present work costs is only about 10% which is well within the accuracy rage of the conceptual estimates. Therefore it can be distinguished between alternatives based on costs.	*Cost was used to differentiate between options of similar technical merit as described in Section 4.2.*	
M23			Page 9-11, Section 9.3.1.2, Transport of Fill and Cover Material to the Landfill: Table 9-3 should be Table 9-2.	*The tables will be corrected.*	
M24			Page 9-12, Section 9.3.1.3, Installation of Engineered Cover Over the Landfill Table 9-3	*See response to comment number 23.*	

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TYPE G or M	PAGE	SECTION or LINE #	COMMENT	DISPOSITION	Disposition accepted initial & date
			should be Table 9-2.		
M25			Page G-4, Appendix G, Costs Estimates, Section G.3.1.7, Security. There are no specifications for fence construction at Superfund sites. Many sites have simple 2-strand barbed wire 4-ft high fences with the appropriate sign notifications. There is no necessity to construct such a high security fence as a 6-ft high fence with three strands of barbed wire. The existing fence meets the requirement of security, with the possible necessity of expanding the length of the fence to extend around the cap.	*For simplicity of the conceptual cost estimates, no assumptions regarding the reuse of the existing fence were made. The existing fence meets the requirements of 265.14. Specific fencing requirements including re-use of the existing fence will be evaluated during Title II Design development.*	
M26			Page G-4, Appendix G, Cost Estimates, Section G.3.1.10, Indirect Costs: Indirect costs estimates in this document are approximate 92% of the direct costs. These indirect costs seem quite high for a construction project. It is recognized that specific accounting may vary, for example, Health and Safety Costs (which are often direct cost) have been included as indirect costs at RFETS. However, complex construction projects, such as building a chemical process facility will have between 15% and 30% indirect costs. Indirect costs for environmental each works project should be considerably less.	*Surveying, Project Management, CQA, Health and Safety, Administration and Contingency were incorrectly identified as indirect costs. These are direct costs. The text and supporting cost estimate tables will be revised.*	
M27			EPA Response to Comments, page 4, Comment 2: The response states that use of matrix effects (ME) were approve by EPA.	*"Metals Bioavailability and Disposition Kinetics," Research Needs Workshop, Office of Research and Development, Research*	

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			The date and title of approval letter or document should b reference.	*Triangle Park 1990 and Labieniec, P. A., Dzombak, D. A., and Siegrist, R. L., Risk "Variability of Uniform Soil Remediation Goals for PCBs," Journal of Environmental Engineering, Vol. 120, No. 3 May/June 1994 set the precedence for the used of Matrix Effects factors. These references will be incorporated into the document.*	
M28			CDPHE Response to Comments, page 3, Comment 8: The response should state that the phrase, "for this open space receptor," will be added to the appropriate sections.	*The response will be revised as suggested.*	
M29			CDPHE Response to Comments page 4, Comment 10: See comment 27.	*See response to comment number 27.*	

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19/19